

**Imaging Technical Standards Working Group – Draft Report to ITMC
April 2011**

Introduction

Through the Information Technology Managers Council, a working group representing a variety of state agencies was formed in November, 2010 to analyze and make recommendations regarding document imaging technical standards.

Members included:

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- Barry Fox, SITSD
- Jack Marks, DOJ
- Nan Nail, DLI
- Jennie Stapp, State Library
- Mark Van Alstyne, SOS
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Goals and Objectives

The main goal of the working group was to develop statewide technical standards for document imaging. In addition, the group was to provide some guidance to agencies regarding the standards, and make recommendations to ITMC on imaging-related issues such as document management.

Recommendations

I. Document Imaging Technical Standards

After reviewing several other states' imaging standards and guidelines, the group decided to focus on international standards, and settled on the ISO body of work around document imaging. The following table represents the ISO standard and the imaging subject area recommended by the working group as a state standard. The associated sections of the ISO documents are separate attachments to this recommendation.

Publication	Section	Description
ISO/TR 15489-1	8.2	Record System Characteristics
	8.3	Designing and Implementing a Record System
ISO/TR 15801	5.3	Information Capture
	5.4	Document Image Capture

	5.5	Data Capture
	5.6	Indexing
	5.7	Authenticated Output
	5.8	File Transmission
	5.9	Document Retention
	5.12	Backup and Recovery
	5.18	Version Control
	6.3	Storage Media and Sub-system Considerations
	6.4	Access Levels
	6.5	System Integrity Checks
	6.6	Image Processing
	6.7	Compression Techniques
	6.8	Form Overlays and Form Removal
	6.10	Migration
	6.11	Information Deletion and/or Expungement
	7	Audit Trails
ISO/TR 18492	7.3.2	Security

II. Agency Guidance on Document Imaging Standards

The group developed the following sample requirements set to help provide some guidance to agencies on how to build technical requirements from the technical standards.

General Requirements

1. Image and metadata are stored in non-proprietary format in SQL or Oracle database, preferably SQL. Metadata must include, but not be limited to:
 - a. Image indexes
 - b. Annotations
 - c. Date/time stamps and other “burned” image stamps
 - d. External file location identifier for hard copy files
 - e. Essential record indicator
2. Images are compressed in a non-proprietary format to allow for minimal bandwidth consumption. The following image formats must be supported:
 - a. TIFF group 4
 - b. PDF
 - c. PDF-A
 - d. JPG
3. System must be highly configurable, to allow for business rule creation and change without custom code. For example:
 - a. Document classes, types, and associated metadata
 - b. Image indexing requirements
 - c. Document retention rules
 - d. Workflow processes, queues, maps, etc.

Batch Scanning

1. Ability to adjust scanning resolution, duplex, etc.

2. Ability to enter batch counts (number of pages, etc.)
3. Ability to perform quality assurance (image control, image clarity, batch reconciliation)
4. Allow for image and data error detection and corrections (de-skew, contrast, deletion, rescan)

Document Imaging Software

1. Web image retrieval and workflow client is thin or non-existent (web-based).
2. Ability to import and export images and metadata in order to transfer images and metadata between different systems or to a new system.
3. Ability to define required and non-required indexes and metadata by document type.
4. Auto-indexing of images, via code 3/9 barcodes.
5. Provide manual indexing of metadata capture fields, such as Folder#, Entity Name, Document Type, Entity ID, file name, etc.
6. Ability to prompt user for missing indexes and/or metadata.
7. Ability to select pre-defined indexes and/or metadata from drop-down lists.
8. Provide image search queries based on index and metadata fields.
9. Ability to retrieve, view and print any or all images for an entity based on search query.
10. Ability to interface image retrieval and view with Microsoft Outlook to email images.
11. Ability for admin to make mass index changes and deletes based on search criteria.
12. Ability to log all image and metadata changes and deletes.
13. Ability to add annotations to images.
14. Ability to define and maintain metadata required for each document type.
15. Redaction - The application must incorporate appropriate technology to redact certain information from the image after scanning. Automated redaction capabilities can be form based and/or pattern based, and tools must allow users to perform manual redaction as needed. The original layer document must be retained and all layers of the image must be viewable to those with appropriate rights.
16. Provide role-based permission levels for all users.

III. Recommendations on Imaging-Related Issues

The working group also recommends to ITMC that subsequent groups begin to develop standards and recommendations around document management, content management, permanent document retention, and image and metadata migration planning.